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**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C.**

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| In the Matter of | ) | |
| | ) | |
| Deployment of Wireline Services Offering | ) | CC Docket No. 98-147 |
| Advanced Telecommunications Capability | ) | |
| | ) | |
| Further Notice of Proposed Rulemaking | ) | |
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# REPLY COMMENTS OF BELL ATLANTIC

Michael E. Glover
Of Counsel

James G. Pachulski
Donna M. Epps
1320 North Court House Road
8th Floor
Arlington, VA 22201
Tel. (703) 974-2815
Fax (703) 974-0259

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ATTACHMENT A

ATTACHMENT B

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# REPLY COMMENTS OF BELL ATLANTIC[1]

## I. Introduction and Summary.

The Commission should not sacrifice the public's interest in true competition for traditional local telephone services in order to promote the private interests of a niche market group of pseudo-competitors. That, however, is precisely what imposing a line sharing requirement would do.

While the carriers who support line sharing claim it would promote competition for advanced services, their comments reveal that they are far more concerned with enhancing their own profitability than with the existence of competitive alternatives for consumers in the larger telecommunications market. In reality, line sharing would discourage the development of competition in the mass market for traditional local telephone services. In fact, not one commenter disputes the fact that competing carriers will have no incentive to offer traditional local voice services if they can provide just the more profitable advanced services by hitching a free ride on top of an incumbent carrier's voice services. The

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[1] Bell Atlantic-Delaware, Inc.; Bell Atlantic-Maryland, Inc.; Bell Atlantic-New Jersey, Inc.; Bell Atlantic-Pennsylvania, Inc.; Bell Atlantic-Virginia, Inc.; Bell Atlantic-Washington, D.C., Inc.; Bell Atlantic-West Virginia, Inc.; New York Telephone Company; and New England Telephone and Telegraph Company.

Commission should not, and can not, turn a blind eye to the anti-competitive impact line sharing would have in the mass market for traditional local voice services.

Moreover, competition for local voice services would suffer needlessly because line sharing is completely unnecessary. As Bell Atlantic explained in its initial comments, competing carriers can already provide advanced services in the absence of line sharing by using an unbundled loop to compete on the same basis as the incumbent and other competing carriers. And it now appears that the real end game for the proponents of line sharing is to deceive the Commission into giving them access to the higher frequencies on the loop at little or no cost, and to ultimately use those same frequencies to strip off all of the services on the line using IP or other packet switched technologies. The result would be to stick the incumbent with all of the costs of the line, while the "sharing" carrier receives all the revenues. As the saying goes, good work if you can get it.

With respect to spectrum compatibility issues, the Commission should reject requests to permanently adopt its interim presumptions as the permanent rule for evaluating new technologies. Instead, going forward, the Commission should rely on the new Committee T1 spectrum management standard to assess the spectral compatibility of new technologies. That new industry standard strikes the proper balance by protecting existing services (and the customers of those services) while still maximizing the deployment of new technologies. In the event that carriers want to deploy a new technology that is not covered by the new industry standard, they should use the standard's analytical method to demonstrate that the technology will not create undue interference. In those rare cases when a dispute arises over whether a new technology complies with the industry standard,

the Commission should allow parties to mutually select an independent third party to resolve the dispute.

II. Line Sharing Would Undermine Competition for Traditional Local Voice Services.

The carriers that support line sharing tout (erroneously) its alleged positive effects on the advanced services market, while completely ignoring the corollary impact such a requirement would have on competition and consumer choice for traditional local voice services. Contrary to their myopic claims, line sharing would harm consumers by sabotaging competition for traditional local voice services.

First, line sharing would dramatically reduce any incentive competing carriers have to provide local exchange services to the mass market. The carriers who support line sharing do not dispute the fact that, if permitted to line share, they will not offer local voice services. As Dr. Robert W. Crandall points out in his accompanying declaration:

> The Covad proposals flow from its desire to compete only in the new, highly-competitive advanced services marketplace while avoiding the traditional voice services that it decries as monopolistic. . . . Covad dismisses as burdensome any proposal that it lease the entire loop at cost because it would then be required to compete in traditional voice services, which it asserts are "monopoly" services. Thus, under Covad's scheme, the Commission should give Covad and other CLECs a pass on competing in the monopoly markets while subsidizing its entry into new markets that have the appearance of being quite competitive with or without Covad.

*Reply Declaration of Robert Crandall at* ¶ 7, ("*Crandall Reply Decl.*") (*Attachment A*).

Indeed, through their litany of excuses for why they don't want to enter the local voice market, competing carriers expressly admit that they will turn their back on traditional voice services if permitted to line share. *See* Northpoint at 13-15, Covad at 37-39. For example, Northpoint claims it should not have to offer voice service because switching a customer to a different provider for voice involves more "technical and

operational hurdles" than line sharing. *See* Northpoint at 14. However, the alleged "hurdles," (such as obtaining access to loops and number porting) are a routine part of running a local network and something that all competing carriers must master -- whether they use their own loops and switches or use some elements obtained from Bell Atlantic. As for Bell Atlantic's part of the process, these are functions it performs on a daily basis for its more than 100,000 unbundled loops. Systems and processes are already in place to accomplish these tasks, and many competing carriers have already successfully overcome these supposed "hurdles" to provide competitive services. In contrast, line sharing would entail the development of new, untested systems and processes and would involve a level of consumer confusion and frustration regarding repair issues that is not present in a single provider/single line environment.[2]

Similarly, Covad claims that its inability to obtain line sharing somehow would deny consumers the full benefit of loops for which they have fully paid. *See* Covad Comments at 38. As an initial matter, consumers have not fully paid for the loop that serves them. Quite the contrary, residential voice services typically are provided at prices that have been set by regulators at levels that are below the cost of the loop and even further below the entire cost to provide the traditional voice service (of which the cost of

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[2] Additionally, contrary to Northpoint's simplistic characterization, line sharing between two carriers has implications that go well beyond a simple cross-connection. Adding a competing xDSL carrier's data service to a loop with existing voice service from an incumbent still requires coordination between carriers since the cable pair at the mainframe must be wired through a new central office splitter device, with one side going to the xDSL carrier's collocation space and the second side being re-connected to the incumbent's switch. If the voice service is switched from the incumbent carrier to a competing voice carrier, a cutover will be required to move the voice service. Due to line sharing, however, this hot cut will not only affect the voice service which is being moved from one carrier to another, but will also impact the xDSL carrier's existing data service. The result is a hot cut that impacts all three carriers and the customer in order to accomplish the transfer of a voice service.

the loop is but one piece). What line sharing really would do is leave the incumbent to bear these costs, but limit its ability to provide a package of services designed to recover the full cost of serving the customer. The carrier "sharing" the line would then pluck off all the more remunerative services such as DSL at little or no cost. This is precisely the scam that Covad seeks to perpetrate.

In each case, these carriers' excuses are nothing more than smoke screens to camouflage the real reason they don't want to provide traditional voice services. The real reason these carriers do not want to enter the local voice market by purchasing an unbundled loop comes down to pure economics. They do not view voice services as a profitable business proposition. As Dr. Crandall explains this point:

> Line sharing is vigorously defended by Covad because it earnestly desires to avoid having to compete in the pedestrian ordinary voice services offered by the ILECs over their own lines. . . . Even though it [Covad] derides the "monopoly" service that has "fully paid for" the loop, it does not wish to compete in this purported monopoly service because it is so unprofitable. . . . Why are Covad and other CLECs so reluctant to lease loops to offer customers an entire array of telecommunications services? The answer is quite obvious: traditional local voice services are offered by ILECs at regulated rates that generally fail to cover the cost of providing the service. . . . Covad understandably desires to avoid these underpriced services by simply offering DSL service over a part of the incumbent's loop.

*Crandall Reply Decl.* at ¶¶ 13, 15.

Carriers that support line sharing also say that facilitating competition in the advanced services market is an important objective of Section 706. Fair enough. But the primary goal of the 1996 Act was to stimulate competition in *all* telecommunications markets -- including all aspects of the local exchange market. The Act's objective was not to promote advanced services *at the expense of* competition in the local voice or other markets. In fact, in recently addressing competition in the residential market, Chairman

Kennard made clear that achieving competitive alternatives for broadband *and local voice services* are equally important goals:

> Because the goal is to bring all Americans the benefits of a competitive marketplace, we must redouble our efforts to bring choice to residential subscribers -- *choice in local phone service* and choice in broadband access.

Remarks of FCC Chairman William E. Kennard, ALTS Convention, Nashville, TN, May 3, 1999, "A Competitive Call to Arms" (emphasis added). However, without the advanced services "carrot," other carriers would lack any incentive to purchase unbundled loops to provide both data and traditional voice services (as incumbent carriers must do).

Second, line sharing is completely unnecessary. Competing carriers are offering advanced services over a variety of mediums and are free to offer advanced services over unbundled loops as well. Advanced services capabilities are being deployed today in the wireline cable, wireless cable, and wireline telephone networks without line sharing.[3] In fact, cable operators already serve some 80 percent of the market for broadband access to the Internet.[4] According to ALTS, moreover, "major DSL providers are already investing (and will continue to invest) hundreds of millions of dollars in the roll-out of their own packet switched networks for the provision of broadband, Internet-based services." ALTS

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[3] *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans,* Report, 14 FCC Rcd 2398 at ¶ 12 (1999) ("Numerous companies in virtually all segments of the communications industry are starting to deploy or plan to deploy in the near future, broadband to the consumer market "). Non-phone-company providers, including cable companies, electric utilities, and wireless cable companies are further along in last-mile deployment of broadband than ILECs. *See id.* at ¶¶ 53-58.

[4] *See The Battle for the Last Mile,* The Economist, May 1, 1999, p.59.

at 5.[5] A quick review of the media in the Washington, D.C. metropolitan area alone reveals a plethora of advertisements for competitive DSL and cable broadband services in this area. *See Attachment B.*

Supporters of line sharing claim that offering advanced services over an unbundled loop is an untenable option because loops are "sufficiently costly to push the price of competitive LEC DSL services out of the reach of the consumer market." *See* Northpoint at 6-7. However, these carriers are free to use their unbundled loop to offer both voice and data services to recover their loop costs from the full set of services, just as incumbents and other competitors do. Indeed, the Commission previously has reached this very conclusion. According to the Commission, "competitors need not recover their [loop] costs from ADSL service alone; they have the same opportunity as [the incumbent] to recover the costs of network elements from all of the services they offer using those facilities."[6]

Additionally, competing carriers need not invest in supposedly expensive circuit switching equipment to offer voice and data services.[7] The migration of voice traffic from

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[5] ALTS argues that without line sharing, "the needs of residential consumers will remain unserved and the existing ILEC voice service monopolies will be extended into the new market for advanced broadband telecommunications services." ALTS at 6. Ironically, line sharing will only hinder the development of competition for what ALTS derides as the monopoly voice market.

[6] *See GTE Telephone Operating Cos. GTOC Tariff No. 1, GTOC Transmittal No. 1148,* 13 FCC Rcd 22466 (1998).

[7] Costs for central office switches have been driven down rapidly by advances in digital technology. On a per-line basis, prices declined over 60 percent from 1986 to 1996, and were projected to fall another 12 percent by 2000. *See generally,* Deutsche, Morgan, Grenfell, Inc., *Telcom Equipment,* Mar. 27, 1998 at 69; Northern Business Information, *U.S. Central Office Equipment market: 1996 Database,* Version 1.0, at 27 (Jan. 1997).

the circuit-switched network to packet-switched networks – ATM and Internet Protocol based – is well underway.[8] There is also no shortage of voice-over-IP and so-called "Next Generation Network" technology that will replace today's circuit switches. Sprint is currently offering residential customers its Integrated On Demand Network (ION) which will use ATM equipment on customer premises to concentrate voice and data traffic.[9] Similarly, AT&T announced it was moving exclusively to packet switching, and phasing out funding of circuit switches.[10] Technology enabling the transmission of voice over packet-switched networks is available and in use today. The absence of line sharing would not therefore force competing carriers to make dual investments in circuit and packet-switched technology to effectively compete with incumbents. Quite the contrary, it merely accelerates the deployment of the new generation of telephone networks and promote competition and innovation the local mass market.

Indeed, it appears that the proponents of line sharing may already plan to expand into voice services by offering Internet telephony (or similar packet switched service). For example, Covad and Rhythms NetConnections have already announced the successful

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[8] Bell Atlantic is aware of at least 13 suppliers including CopperCom, Inc., Jetstream Communications, MaxComm Technologies and VINA Technologies that are offering systems that support digitized voice over DSL loops. Other carriers offering voice over DSL loops are Westell Technologies & AudioCodes; Diamond Lane/Nokia; FlowPoint Corp.; Siemens Semiconductors & Aware; Cisco; Nortel; Alcatel; 8x8, Inc. & Clarent Corp. & Tut Systems.

[9] *See* <http://www.sprint.com/ion/residential.html>; *see also Carriers Take Convergence Plunge,* Network World, August 10, 1998, p. 62 ("Sprint in June rattled industry cages by announcing plans to build an Integrated On-Demand Network").

[10] *See* Mobile Communications Report, March 8, 1999 (stating "AT&T plans to reduce investment in core backbone circuit-switching to close to zero by 2000"); Communications Daily, March 17, 1999 (stating "AT&T plans to buy 33 Nortel Network DMS-500 switches, which support transition from circuit-switched to packet-switched networks"). *See also* <http://www.ipservices.att.com>.

completion of tests to provide voice services and high-speed DSL services over the same line.[11] Remarkably, this would allow these carriers to siphon off *all* the data and voice services provided over the line, and to do so at little or no cost by using line "sharing." The incumbent would be left with all the costs of providing the line, while getting essentially none of the revenues. In contrast, the so-called competitor gets none of the costs, but all of the revenues. This very real scenario merely serves to expose line sharing for the sham that it is.

## III. Bell Atlantic's Relationships With Internet Service Providers and Interexchange Carriers Do Not Involve Line Sharing.

Some carriers that promote line sharing claim that Bell Atlantic has already resolved any operational difficulties associated with line sharing because it is currently line sharing with Internet Service Providers ("ISPs") and interexchange carriers. *See* Covad at 10, Network Access Solutions ("NAS") at 7. One also claims that xDSL line sharing is no more complicated than the service arrangements between incumbent carriers and interexchange carriers. *See* Covad at 11. They are wrong on both scores.

First, contrary to these carriers' claims, Bell Atlantic does *not* currently engage in line sharing with ISPs that subscribe to its wholesale volume and term discount tariff for ADSL service. According to Covad, under its wholesale tariff, Bell Atlantic has already figured out how to divide maintenance and repair responsibilities for a single line with

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[11] *See Covad Announces First Alliance to Deliver Voice over DSL Services to Small Business*, (July 21, 1999) <http://www.covad.com/about/press_releases /press_072199.html>; *Covad Successfully Executes Trials of Combined Voice and Data Over DSL* (June 7, 1999) <http://www.xdsl.com/newsreleases/xdsl/3194.asp>; *Rhythms and MCI WorldCom Complete Unprecedented Voice and Data Over DSL Test* (June 4, 1999) <http://www.rhythms.net/about/pr/jetstream.html>.

ISPs, and therefore, has already solved the operational problems associated with line sharing. *See* Covad at 10. That is simply wrong.

Under the wholesale ADSL tariff, ISPs neither share the line nor share loop maintenance and repair responsibilities. Instead, Bell Atlantic provides xDSL access services to ISPs and remains the sole service provider of both the xDSL and voice services on the line. As a result, Bell Atlantic retains sole responsibility for installing and maintaining and repairing all underlying *network* equipment – which includes everything from the network interface device to the ATM handoff.

In fact, contrary to Covad's claim, Bell Atlantic's wholesale tariff transfers only the retail "business functions" of dealing with customers to the ISPs.[12] The only installation performed by the ISPs is the installation of *non*-network equipment such as computer or modem-related equipment. Bell Atlantic retains installation and repair responsibilities for all Bell Atlantic services and for the network equipment used to provide them.

Line sharing is vastly different from these arrangements because the line would have two sets of network equipment – the competing carrier's xDSL equipment and the incumbent's voice equipment – and two different providers would be responsible for the installation and repair of such equipment. This contrasts sharply with the tariffed service offered to ISPs – where Bell Atlantic remains solely responsible for the maintenance and repair of the underlying facilities that support the service – and enormously increases the degree of complexity. With line sharing, two separate carriers would have to navigate an

[12] For example, if the ISP receives a customer trouble report on their data service, the ISP is responsible for determining whether its customers' reported service troubles result from a computer/modem defect or a network defect. If there is a network problem, the ISP refers the problem to Bell Atlantic for repair. At no point would the ISP itself attempt to repair Bell Atlantic's xDSL service.

array of maintenance and repair complexities as each attempts to perform tests and repairs without disrupting the other's POTS or data service.

Second, DSL line sharing is vastly different from and *more*, not less, complicated than providing access services to long distance carriers. Contrary to Covad's claim, in the case of access services, the outside loop plant is not "shared" by the local exchange and long distance carriers. *See* Covad at 11. Instead, in the case of long distance calls, Bell Atlantic connects an end user via the circuit switched network to *one, and only one*, service provider at a time, and there is a clean line of demarcation between Bell Atlantic's network facilities and the long distance carrier's facilities. On its side of that demarcation, Bell Atlantic is solely responsible for the installation and maintenance of the underlying network facilities. If Bell Atlantic's facilities malfunction, it is Bell Atlantic, not the interexchange carrier that repairs them. Similarly, interexchange carriers are responsible for the installation, maintenance and repair of the facilities on their side of the demarcation. Again, because delivery of long distance calls does not involve multiple service providers simultaneously sharing the loop, xDSL line sharing is enormously more complex and presents greater operating problems.[13]

## IV. The Commission Lacks Authority to Mandate Line Sharing Under the Act.

The carriers that support line sharing argue that the Commission has the authority to order line sharing as either an unbundled network element or as a new type of interstate access service. These arguments are misplaced.

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[13] Dr. Crandall echoes this point by stating that, unlike line sharing, when the regional Bell operating companies were divested from AT&T and required to convert their switches to provide equal access to all interexchange carriers, this "was a straightforward one-time adjustment to their end-office switches." *Crandall Reply Decl.* at ¶ 17.

First, contrary to the claims of line sharing supporters, line sharing is not required by section 251(c)(3)'s non-discrimination requirement. The Commission has interpreted section 251(c)(3)'s nondiscrimination requirement to mean that the access and unbundled network element provided by an incumbent LEC must be "at least equal-in-quality to that which the incumbent provides to itself." *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996,* 11 FCC Rcd 15499 at ¶ 314 (1996) ("*Local Competition Order*"). Here both incumbents and competing carriers have access to the loop, and have the same ability to offer a combination of voice and data services over a single loop. Or to put it another way, nothing *precludes* competing carriers from fully utilizing an unbundled loop to do the same thing that incumbents can do with the loop. Likewise, competing carriers are free to adopt competitive pricing structures by offering a mix of services from which they can recover the full cost of the loop. This fully satisfies the non-discrimination requirement. In reality, it is *line sharing itself that would violate the Act's non-discrimination requirement* by providing competing carriers with an artificial advantage that incumbents – who have to cover the full cost of the loop – can not match.

Second, line sharing is not required to avoid discriminating against the incumbents' voice customers in violation of sections 201 and 202 of the Act. Covad claims that it is somehow discriminatory if an incumbent's voice customers can not obtain data services from another carrier over a single loop, while those customers subscribing to an incumbent's xDSL services can get voice and data over a single loop. Covad at 17. This is nonsensical. The simple fact is that any customer can get both voice and data over a single line – and can choose to get those services from either an incumbent or from a competing carrier. The absence of line sharing does not foreclose this option. Any voice customer

that objects to purchasing a second line to take advantage of a competing carrier's data services is free to consolidate his or her voice and data services on the competing carrier's line. In reality, it is the competing carriers themselves who want to foreclose this option to customers by opting not to provide competitive local voice services.

Third, the *Special Access Expanded Interconnection Order* does not provide a basis for the Commission to require line sharing. On the contrary, the interconnection arrangements ordered there required the unbundling of local transport from an incumbent's access service, and are *not* analogous to line sharing. In the *Expanded Interconnection Order*, the Commission required incumbent carriers to permit all parties, including competitive access providers, to terminate their own transmission facilities at incumbent's central offices and to interconnect with incumbent's access services. *See Expanded Interconnection Order,* 7 FCC Rcd 7369 (1992). In that case, however, to take advantage of an incumbent's access service, interconnecting parties were required to provide their own transport facilities (*i.e.* the facilities between the central office and the POP) in order to interconnect with the incumbent's access service. As a result, instead of allowing competing parties to occupy unbundled spectrum on an incumbent's channel termination facilities, the Commission allowed competing parties to interconnect and provide the transport component of an existing access service using their *own, separate* facilities.

If Covad means to suggest that the *Expanded Interconnection Order* itself requires line sharing, it is wrong. For data services, only the transport component between the ATM and the ISP is even arguably analogous to the transport component made available to competing parties through expanded interconnection. But carriers supporting line sharing

want access to the loop facilities between the customer premises and the central office, not the transport component.

Moreover, if Covad means to suggest that the *Expanded Interconnection Order* is somehow a precedent for requiring two carriers to share the same line (or other facility), it is equally wrong. In that instance, the Commission directed carriers to interconnect, but each carrier remained responsible for its own respective facilities. Here, in contrast, the Commission is being asked for the first time to require two different carriers to share the same facility.

Fourth, as Bell Atlantic and others explained in their initial comments, loop spectrum is not a "network element" as defined under Section 153(29). *See, e.g.,* Bell Atlantic at 7. Supporters of line sharing argue that loop spectrum constitutes a "network element" because that term includes "a facility or equipment used in the provision of a telecommunications service," as well as "features, functions, and capabilities that are provided by means of such facility or equipment." *See* Northpoint at 26, Covad at 18. The Commission, however, has squarely rejected their claims. In the *Local Competition Order,* the Commission explicitly rejected the notion that part of the capacity of a loop could itself be considered a "network element." There the Commission explained that:

> Some parties advocate defining a loop element as merely a functional piece of a shared facility, similar to capacity purchased on a shared transport trunk . . . . While such a definition, based on the types of traffic provided over a facility, may allow for the separation of costs for a facility dedicated to one end user, we conclude that such treatment is inappropriate."

*Local Competition Order at* ¶ 385. In rejecting the notion that carriers could purchase unbundled access to part of a loop to provide only certain services, the Commission confirmed that "carriers purchase rights to *exclusive* use of unbundled loop

elements . . . ." *Id.* at ¶ 357 (emphasis added). This exclusive use requirement for an unbundled loop is flatly inconsistent with the parceling out of part of the capacity of a loop to competing carriers for the provision of xDSL services.

Fifth, under no circumstances could a line sharing requirement meet the impairment standard in section 251(d)(2)(b). In fact, the only arguments to the contrary are based on the unsupported assertions that, without line sharing, it will be economically "impossible" for competing carriers to provide xDSL services to residential markets, *see* Covad at 19, ALTS at 11, or that the absence of line sharing would cause a "material increase" to the costs to provide competing xDSL services, *see* NAS at 10. These claims simply cannot be squared with the Supreme Court's analysis of the requirements of section 251(d)(2)(b).

Boiled down to their basics, the claims by the supporters of line sharing amount to little more than an argument that their own profitability will be further enhanced if they can avoid the cost of purchasing an unbundled loop and avoid competing to provide voice service. However, the Supreme Court has rejected the theory that any increase in cost and the resulting impact on profitability is sufficient to "impair" a new entrant's ability to furnish desired services. *See AT&T v. Iowa Utils. Bd.*, 119 S.Ct. 721, 735 (1999). Instead, the Supreme Court noted that while a new entrant's decrease in annual profits may impair "its ability to amass earnings, [it] has not *ipso facto* been impaired . . . in its ability to provide the services it seeks to offer." *Id.* The Supreme Court also explicitly rejected the theory that diminished profitability equals impairment: "We similarly disagree with Justice Souter that a business can be impaired in its *ability* to provide services – even impaired in that ability 'in an ordinary, weak sense of impairment,' – when the business receives a handsome profit but is denied an even handsomer one." *See id.* at n.11.

In any event, the simple fact remains that competing carriers can, and do, provide xDSL using unbundled loops. Likewise, the simple fact remains that competing providers can deliver a mix of services over those loops to recover their cost to the same extent that incumbents can do so. If competing carriers choose not to offer certain services over those loops, that is up to them. But they simply cannot rely on any decrease in profitability that results from their own choice of business plans to satisfy the Act's impairment standard. After all, the purpose of the Act was to promote economically efficient competition for all services -- *not* to protect individual competitors from the consequences of their own flawed business plans.

## V. The Commission Should Rely on Committee T1 Standards on Spectrum Compatibility and Management.

The Commission has consistently followed a policy of having industry standards groups resolve technical issues, such as spectrum compatibility.[14] Here, the Commission has already concluded "that the industry, via its standards bodies, can create acceptable standards for xDSL and other advanced services." FNPRM ¶ 80. The Commission should therefore leave the development of technical standards for spectrum compatibility to the industry experts in Committee T1.

### A. The Commission Should Adopt the Committee T1 Spectrum Management Standard.

The Committee T1 has already developed classes of digital subscriber line technologies that are spectrum compatible with existing network technologies and will not

[14] *See, e.g., Performance Measurements and Reporting Requirements for Operations Support Systems*, 13 FCC Rcd 12817 at 128 (1998).

cause spectrum interference. The Commission should allow deployment of new digital subscriber line technologies on an automatic basis only when they fit in one of the classes specified in the new Committee T1 spectrum management standard. In those limited instances where a carrier wants to deploy a technology that does not fit in one of the specified classes, the Commission should require that carrier to present the new technology to Working Group T1E1.4 so that it can consider adding a new spectrum management class to the Committee T1 standard as well as determining the necessity of any deployment restrictions.

Covad argues that the Commission should develop and administer a new process for "Qualifying New Loop Technologies" for technologies that are not covered by the new spectrum management standard. Covad at 50. This proposal should be rejected.

First, the industry standards body is already equipped to handle new technology developments that are not yet covered by the industry standards. These new technologies should be presented to the industry body, specifically the Committee's Working Group T1E1.4, so that the industry body can develop modifications to the spectrum management standard to accommodate the new technology, if appropriate.

Second, Covad's proposal would rely entirely on a limited field trial to determine a new technology's ability to cause undue interference. A field trial is not a reliable means for demonstrating spectrum compatibility with existing technologies because the trial will rarely, if ever, expose the new technology to all or even most of the scenarios in which end users would be most vulnerable to spectrum interference. Lab tests and comprehensive analytical evaluations are far more reliable in determining whether a new technology will

cause undue interference to the many services customers receive today with a wide range of existing technologies.

Finally, in the rare case where two carriers disagree on whether a new technology complies with the industry standard, the dispute should be resolved through a private arbitration under the auspices of an appropriate technical body, such as Underwriters Laboratory. This process will ensure expeditious resolution of the dispute by parties that are already well versed in the relevant technical and industry standard issues.

B. The Commission Should Not Preempt the Industry Standards With The Commission's Interim Spectrum Compatibility Presumptions.

A few carriers advocate permanent use of the Commission's interim presumptions regarding spectrum compatibility of new technologies. *See* Covad at 50, Rhythms at 19. The Commission should reject these requests. The Commission's interim presumptions rest on the fallacious assumption that the successful deployment of a new technology on a single network, regardless of its scale, scope, location, network architecture, and operational environment, automatically qualifies such technology for deployment on networks nationwide. It is highly unlikely that the service environment in which a new technology is deployed on one network will mirror all or even most of the potential service environments that exist on all other networks nationwide. Thus, the ability of a new technology to operate without causing interference in one portion of one carrier's network is no indication that the new technology will operate without causing interference in any other network in the country.

Moreover, rather than protect the services customers receive today from harmful interference, the Commission's presumptions would require them to suffer interruptions and degradations to their service. It is difficult, if not impossible, for incumbent carriers to

predict how each new technology will interfere with any one customer's service *prior to* deployment of that new technology or testing of that technology in a lab environment. Numerous end users will first have to suffer an interruption or degradation of their traditional telephone service, including, potentially, their access to E911 service, before incumbent carriers can take steps to remedy problems. The Commission should avoid this result by relying on Committee T1's proven industry standards as the long-term mechanism for evaluating the spectrum compatibility of new technologies.

Similarly, the Commission should reject requests to define "significantly degrade" by looking to whether a new technology would cause an end user to notice a perceptible or unacceptable impairment of service. *See* ALTS Comments at 20. Defining "significantly degrade" by end user perceptions is problematic because it relies on end users as the first line of defense for trouble detection of an incompatible service. Under this approach, end users will always have to endure interference in the first instance before carriers can justify corrective intervention. Instead, the Commission should find that a new technology "significantly degrades" existing services if the service does not meet the minimum acceptable performance level set by industry standards bodies. Such minimum acceptable performance levels are defined in the standard for a particular service in measurable terms such as minimum acceptable bit-error-ratio and signal-to-noise ratio margin for certain loop lengths, loop models, or loss values. This approach to defining "significantly degrade" is a more precise way to quantify unacceptable interference and is consistent with the Committee T1 spectrum management standard.

C. Committee T1 Standards Are Fair and Non-Discriminatory.

Northpoint attacks the developing Committee T1 spectrum management standards because they protect "guarded" technologies currently deployed by incumbent carriers, such as ADSL. *See* Northpoint at 44. But there is nothing wrong with providing such protection. The spectrum management standard defines "guarded systems" as "legacy systems that have been deployed in high numbers as well as standards-based DSL systems that are expected to be deployed in high numbers in the future." *See* T1E1.4: Spectrum Management for Loop Transmission Systems, Draft T1E1.4/99-002R3 at 8. It is entirely appropriate for the new Committee T1 standards to protect the basic telephone services and technologies that millions of telephone customers currently rely upon from interference created by new, non-standard xDSL technologies. For example, the Commission has long-recognized that protecting customers using existing services from excessive crosstalk is in the public interest. See 47 C.F.R. §§ 68.308 and 68.310.

Moreover, standards bodies have historically developed standards for new loop technologies that ensure spectrum compatibility with older, standards-based systems.[15] Committee T1 can not sacrifice broadly-deployed existing services by adopting standards that permit the deployment of incompatible new technologies. Millions of consumers expect, pay for, and depend on the reliability of the services and technologies that they use in Bell Atlantic's network (i.e. POTs, DDS, ISDN, HDSL, ADSL, RADSL and T1). The public interest would not be served if Committee T1 shirked its responsibility to prevent

[15] For example, ISDN was developed to be compatible with DDS and T1; HDSL was developed to be compatible with DDS, ISDN, and T1; and ADSL was developed to be compatible with ISDN, and HDSL.

harm to third parties, as some carriers suggest, in order to promote the deployment of new advanced services that can interfere with existing telecommunications services.[16]

NorthPoint also attacks Committee T1 spectrum compatibility standards based on the speculation that the committee is dominated by incumbent carriers and large manufacturers. *See* Northpoint Comments at 43. NorthPoint's speculation is completely unfounded. As Nortel points out, any interested party need only pay a modest fee to participate in Committee T1. Nortel Comments at 5. Incumbent carriers constitute less than 10 percent of Committee T1's voting members. And, even if a particular interest group did dominate Committee T1's membership, votes are weighted so that the total possible votes of that interest group could not constitute a majority.

## VI. Spectrum Management Policies.

### A. Bell Atlantic Spectrum Management Practices Are Non-Discriminatory.

Some parties claim incumbent carriers are engaging in discriminatory practices such as segregating competing carrier technologies in separate binder groups and using discriminatory xDSL spectrum requirements. *See* AT&T at 13, Rhythms at 21. While Bell Atlantic cannot address those claims related to other carriers, the claims that are addressed to Bell Atlantic are completely without merit.

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[16] Basing standards on the average or median penetration of SDSL today, as Northpoint proposes, would result in an abundance of spectral incompatibility problems. To reliably predict interference potential, you must look at a statistical worst case penetration of a new technology – not the average or median penetration existing today. In a few short years, certain binder groups in the U.S. will have high concentrations of SDSL. In fact, by definition, using today's average penetration as Northpoint suggests would mean that penetration would be higher in *half* the cases. Northpoint nonetheless claims the T1E1.4 "worst case" scenario is unrealistic because the high bit rate SDSL penetration is more like .01% rather than the 40% assumed in the Committee T1 standard. However, the Committee T1 standard's "worst case" scenario properly compares: (1) the impact of 20 SDSL in a 50 pair binder group with ADSL to (2) the impact of 20 HDSL in the same binder group with ADSL (hence the 40%).

Bell Atlantic does not segregate competing carriers' xDSL services from its own commercial ADSL service. Bell Atlantic only utilizes binder group separation in the case of ADSL and T1s, which the industry has long agreed are incompatible when deployed in the same binder group. In fact, Bell Atlantic agrees with Rhythms that binder group management is unnecessary for SDSL systems if SDSL observes compatible signal power limits and deployment guidelines. The "worst case" scenario evaluations used to develop the xDSL spectrum management classes in the Committee T1 draft standard will eliminate the need to actively manage the identity and number of conforming technologies in a particular binder group.

Where industry spectrum management standards have not yet been finalized for xDSL technologies, Bell Atlantic applies non-discriminatory standards set forth Bell Atlantic's Technical Reference document. The Technical Reference Guidelines do not discriminate against competing carriers because the signal power limits for ISDN, HDSL, and ADSL technology used on unbundled loops are identical to the signal power limits associated with comparable Bell Atlantic commercial services.

Bell Atlantic's Technical Reference Guidelines also require carriers to perform spectrum compatibility analyses for new xDSL technologies that Bell Atlantic does not deploy. For such new technologies, a preliminary analysis is critical to ensure that the new technology is compatible with the technologies that have already been deployed by Bell Atlantic and other competing carriers in Bell Atlantic's network. Bell Atlantic itself performs such spectrum compatibility analyses for the new technologies that it considers for deployment. It is reasonable and non-discriminatory to require competing carriers to do the same.

B. The Commission Should Not Allow States To Establish Their Own Spectrum Management Requirements.

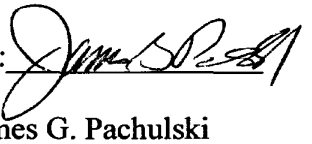
The Commission should refrain from permitting states to adopt individual state spectrum management guidelines in addition to any rules adopted by the Commission. *See* Oklahoma Corporation Commission at 10, Public Utility Commission of Texas at 5.

The Committee T1 spectrum management standard will provide uniform national guidelines for the deployment of xDSL technologies and eliminate the need for tedious, expensive, proactive spectrum management within loop binder groups. If state commissions could dictate, for example, the identity and quantity of technologies that can be deployed in particular binder groups, they would recreate the problem that the industry standard body has already eliminated. Moreover, individual state guidelines would prove particularly burdensome because they could potentially subject carriers to compliance with different deployment and interference guidelines in every state. Such an onerous requirement would be time-consuming, expensive and would ultimately delay the deployment of new xDSL services nationwide. Because individual state spectrum management guidelines are unnecessary, the Commission should not impede the rapid deployment of advanced services by burdening carriers with yet another layer of regulatory complexity.

VII. Conclusion.

For all the foregoing reasons, the Commission should reject a line sharing requirement and take action with respect to spectrum compatibility and management issues consistent with the above.

Respectfully submitted,

By: 

James G. Pachulski
Donna M. Epps
Attorneys for Bell Atlantic
1320 North Court House Road
8th Floor
Arlington, VA 22201
(703) 974-2815

Michael E. Glover
Of Counsel

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